



Golden
Empire
Amateur
Radio
Society, Inc.

"Dedicated to Public Service"

THE RADIATOR



W6RHC
IRLP #8170



www.gearsw6rhc.org

P.O.Box 202 Chico, CA 95927

October 2021 Newsletter

GEARS Founded August 13, 1939

Long time and active GEARS member Kent Jorgensen KF6ONI passed away September 19th from COVID while hospitalized at Enloe. He was usually at our meetings and frequently checked into the GEARS net. He will be missed.

Kent was fully vaccinated for COVID, however the vaccine isn't completely effective. While 99% of the COVID deaths are unvaccinated, Kent was one of the unlucky 1%.

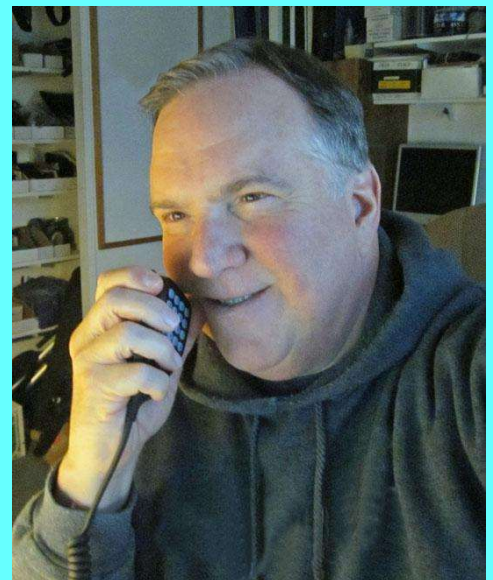
I'm very concerned about COVID conditions worsening due to Butte County having a low vaccination rate, which puts all of us at risk. It's important that we keep our members safe. If the situation continues to become more dangerous, we may need to increase restrictions or cancel meeting and events. I'll keep our membership informed.

If you know anyone who is new to amateur radio, please tell them about the GEARS New Ham Kit. It has great tips and information to help them get started. <https://tinyurl.com/rsw2p65c>

At our last meeting we discussed mobile installation. In this issue of the Radiator, we have a Mobile Radio Check List By Steve Vansickle, WB2HPR.

Happy October Birthday wishes to Howard Bielich KC9VAZ, Michael Favor N6FAV, Keith Harris KN6JBT, Tom Nelson AB6TN, Tom Rider W6JS, Scott Roberts KD6SAN, Stephen Wolske KF6HSS and it's also my birthday this month, Jim Matthews K6EST.

Take care and stay safe.



'73
Jim Matthews K6EST
jiminchico@yahoo.com
530-893-3314



Join GEARS on Facebook
www.facebook.com For timely
news and additional information.

October 2021 Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3 2pm VEC Testing 8pm OARS Net	4 7pm GEARS Board 7pm GARS Net 8pm ARES Net	5 7:30pm GEARS Net	6	7 7pm PARS Net 7:30pm Simplex Net	8 7pm OARS meeting 7pm GARS meeting	9 9am GEARS Breakfast
10 8pm OARS Net	11 7pm GARS Net 8pm ARES Net	12 7:30pm GEARS Net	13	14 7pm PARS Net 7:30pm Simplex Net	15 7pm GEARS Meeting	16
17 8pm OARS Net	18 7pm GARS Net 8pm ARES Net	19 7:30pm GEARS Net	20	21 7pm PARS Net 7:30pm Simplex Net	22	23
24 8pm OARS Net 31 Halloween	25 7pm GARS Net 8pm ARES Net	26 7:30pm GEARS Net	27	28 7pm PARS Net 7:30pm Simplex Net	29	30 9am OARS Breakfast

VEC Testing, FCC License Exam available, Sunday October 3rd. by appointment. For information or registration call Tom Rider, W6JS 530-514-9211
Chico Breakfast 2nd Saturday 9am Farmers Skillet Cohasset Rd, Chico
GEARS Board Meeting 1st Monday 7pm by zoom.
OARS Meeting Second Friday of the month
GARS Meeting Second Friday of the month
Butte ARES Meeting 3rd Tuesday, TBD Contact Dale Anderson, KK6EVX 826-3461 for more information.
GEARS Meeting, 3rd Friday of the month, Eyeball QSO 6pm, meeting at 7:00 pm. Search & Rescue Building
OARS Breakfast 4th Saturday of the month

NETS:

OARS Club Net Sunday 8pm 146.655 Mhz - PL 136.5
GARS Club Net: Monday, 7:00 pm 147.105 MHz + PL 110.09
Butte ARES Net Mondays 8pm 145.290 MHz - PL 110.9
Yuba Sutter Club Net Monday 7pm 146.085 MHz + PL 127.3
GEARS Club Net Tuesdays 7:30 PM 146.850 MHz - PL 110.9
PARS Club Net Thursday 7pm 145.290 - PL 110.9
Simplex Net Thursday 7:30 p.m. 146.52 no tone
Yuba Sutter ARES Net Thursdays 7pm 146.085 MHz + PL 127.3
Sacramento Valley Traffic Net Nightly 9:00 PM 146.850 MHz - PL 110.9

GEARS Century Members

Dale Anderson Kent Hastings
Bennett Laskey Tony Nasr
Scott Roberts

We thank these members for their extra support.

GEARS Repeaters

GEARS West on St. John
145.410 MHz PL is 123.0 Negative offset.
PL both input and output (CTSS)

GEARS East in Forrest Ranch
146.850 MHz Negative offset. PL 110.9 CTSS
440.650 MHz Plus offset, PL 110.9 Hz

Sailing Vessel with Ham Radio History Marks 100 Years

The schooner Bowdoin is a century old this year -- but the ham radio history of the 88-foot (LOA) Bowdoin is often neglected.

Now owned by the Maine Maritime Academy (MMA) as a training vessel, it was constructed in Maine specifically for Arctic exploration. The vessel relied on Amateur Radio for communication during explorer Donald B. MacMillan's Arctic Expedition of 1923 and on the MacMillan-McDonaldByrd Expedition of 1925 — thanks in part to ARRL co-founder Hiram Percy Maxim, W1AW.

The long wave transmitters MacMillan used on his earlier missions had proved “unable to penetrate the screen of the aurora borealis,” as then-ARRL historian Michael Marinaro, WN1M (SK), explained in his article, “Polar Exploration,” in the June 2014 issue of QST. In 1923, MacMillan turned to ARRL for help in outfitting his next expedition with better wireless gear. Marinaro recounted, “It was enthusiastically provided.” Maxim and the ARRL Board recruited Donald H. Mix, 1TS, of Bristol, Connecticut, to accompany the crew as its radio operator.

M.B. West, an ARRL Board member, designed the gear, which was then built by fellow amateur operators at his firm, Zenith Electronics. The transmitter operated on the medium-wave bands of 185, 220, and 300 meters, running 100 W to a pair of Western Electric “G” tubes. Earlier exploratory missions had used gear that operated on long wave frequencies. The shipboard station on board the Bowdoin was given the call sign WNP — Wireless North Pole.

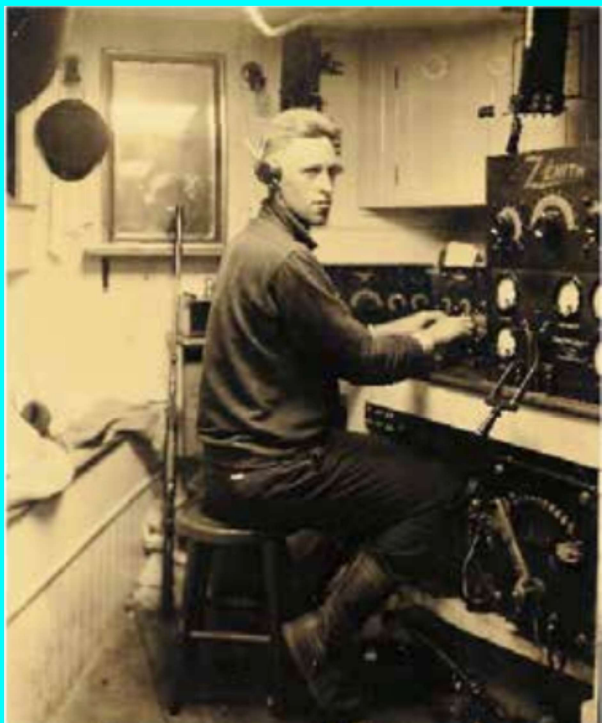
“WNP transmitted weekly 500-word press releases and listings of stations worked and heard,” Marinaro said. “Once received by amateur stations, these reports were delivered to local affiliated newspapers of the North American Newspaper Alliance; from there, they were distributed syndicate-wide by telegraph.”

MacMillan's subsequent attempt at the North Pole centered around wireless. The objectives -- supported by the Navy and the National Geographic Society -- were to determine the full capabilities of radio north of the auroral belt and to explore the northern reaches by air.

The outstanding accomplishment of the 1925 expedition was in the sphere of radio. Utilizing shortwaves, the expedition was in consistent contact with the outside world throughout the journey, to the delight of the amateurs who were able to work them. The phenomenal success proved to the Navy that shortwaves were definitely superior to the long waves and ultra long waves that fleets had been using.

The venerable vessel -- the official vessel of the State of Maine and the flagship of Maine Maritime Academy's Vessel Operations and Technology Program -- recently underwent a complete hull restoration and refitting and has done a little touring to mark its centenary.

Today, the Bowdoin's home port is Castine, Maine.



Don Mix, 1TS, in the
Bowdoin's radio room

Chip Shortage Continues to Hit Electronic Equipment Supply

The severity of the global computer chip shortage has electronic equipment manufacturers finding creative ways to manage supply channels while trying to meet product demand. Equipment suppliers said they hope the semiconductor shortage will ease soon, perhaps by early 2022. In the meantime, the availability of some electronics -- including Amateur Radio gear -- remains strained.

The pandemic has disrupted global supply chains for integrated circuits since early 2020, as factories closed and transportation was delayed due to the pandemic. Surging demand for motor vehicles and other consumer electronic products, prompted in part by economic stimulus measures, have also exacerbated the situation.

Gene Niemiec, owner of KJI Electronics, said supply of new ham radios has tightened but that he's been working closely with companies such as Yaesu to fill his orders. "But as soon as a shipment arrives, they're sold and out the door," he said.

A number of equipment suppliers confirmed that their difficulty in sourcing components has worsened in recent months. For example, the scarcity of chips has had an impact on HD Radio. This summer, General Motors decided to exclude HD Radio on certain pickup truck models in the 2021 and 2022 model years.

Scott Stiefel, COO of Telos Alliance, said a series of unplanned events — including fires at two chip factories in Japan — combined with the pandemic to contribute to the shortage. "The same challenges affecting the auto, computer or household electronics industry are there for us," he said.

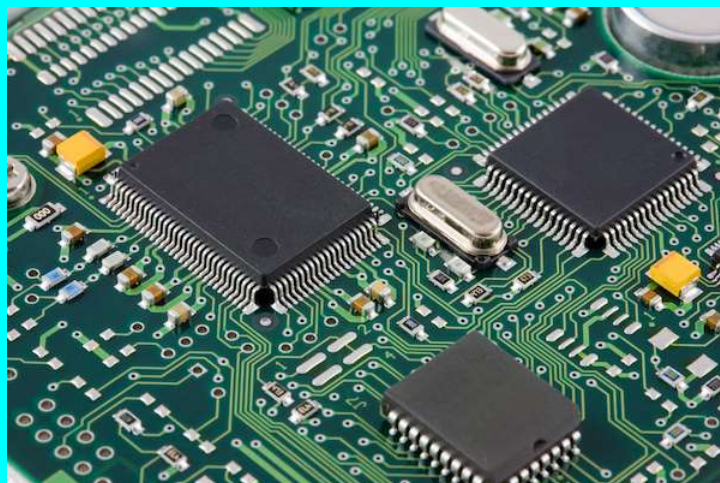
"Chip shortages, end-of-life issues for low-volume components, as well as global logistics problems. But without question, the factory fires at the AKM and Renesas Fabrication facilities have impacted the electronics industry, already taxed by the COVID-related shortages. The mass buying and stockpiling over and above the normal demand have also created shortages in both supply as well as in logistics. Again not directly attributable to COVID, but a side effect of consumer behavior."

Prices for chips are also up -- and in some cases dramatically. For Inovonics, a broadcast equipment manufacturer, a microprocessor it normally pays \$14 for is now \$60. And lead times have also been extended in many cases to 42 weeks or longer.

The shortage has affected virtually all parts including ICs, SMD parts, power supplies and even metal chassis. In addition, there are only a handful of companies that make the analog-to-digital and digital-to-analog components used in phones, cameras and just about anything that converts audio between analog and digital.

The chip shortage is also affecting some electronic manufacturer's research and development efforts and work on new products.

But chips aren't the only thing being affected. Steel prices in July were up 215% from 16 months prior, according to Fortune. That potentially means a worsening shortage may scramble supply chains and increase the cost of towers.



Mobile Radio Check List

By Steve Vansickle, WB2HPR

With summer weather winding down, its time to start thinking about the change in seasons, and the effects that cooler and harsh weather may have on the operation of our mobile equipment.

Changing road conditions may wreak havoc on our cars -- and the radio gear we have installed. Here are some suggestions for making your mobile radio reliable and safe.

One approach to checking out your installation may begin with the 12.8v DC power wiring. First, review the manufacturer's installation instructions. That would include the points of connection to the car battery, vehicle ground, fuse holder(s), and the power cable connector at the radio itself. Ground connections should be made by scraping the paint off the car attachment point if necessary.

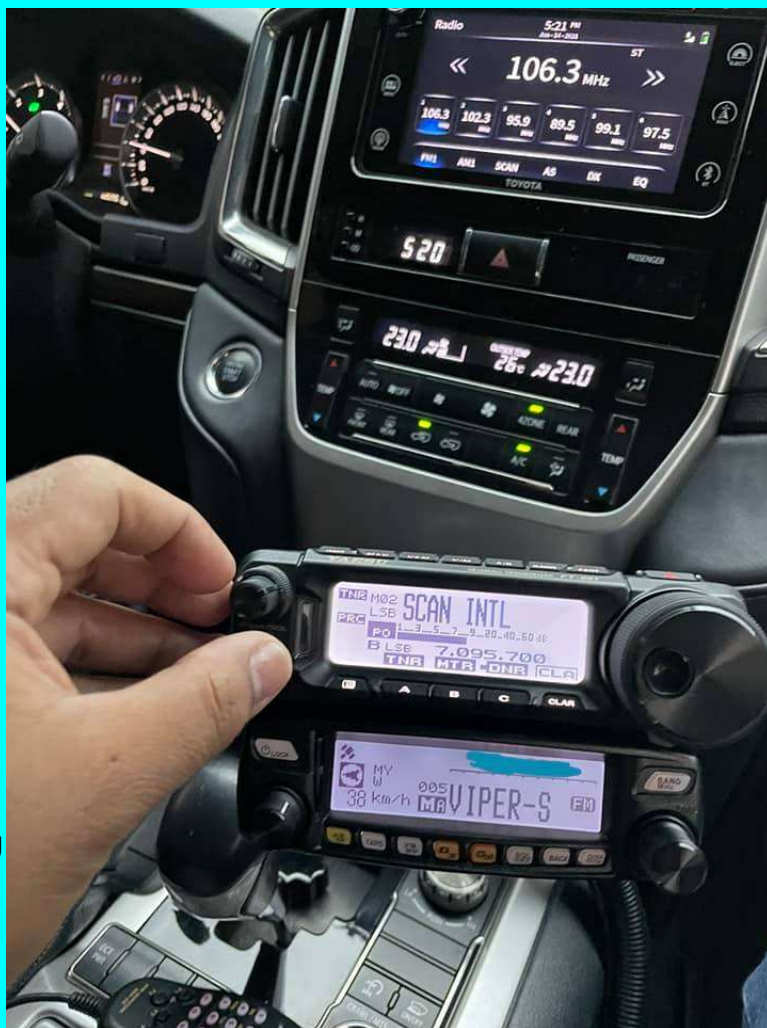
Connections should be free of dirt, corrosion, grease and other contaminants. The contacts should not be discolored, bent or broken, and should smoothly align, forming a tight fit with mating surfaces. The DC leads should not be pinched, nor should the insulation show nicks and scrapes or other obvious signs of wear and tear. If so, the DC leads should be properly repaired or replaced. Make sure that the proper size fuses are installed and never rely on the coax cable shield to provide a DC ground for your radio. Don't rely on temporary stop-gap connections like a cigar lighter plug either. These are not designed to handle the high current demands of a mobile radio. Leave them for your cell phone charger or GPS.

If you are using a magnetic mount antenna, it's always a good idea to give the cable a once-over. Too often they can be easily damaged by improper routing, resulting in a crushed coax -- leading to poor or intermittent receive, transmit, or both. While you're at it, check the antenna plug at the point of connection to the radio. It should be as tight as you can make it. I have seen many instances where the PL-259 connector will work its way loose due to normal road vibration. For extra assurance, you can apply a bit of electrical tape to help reduce the possibility of the plug's locking ring coming loose again. Also, check for corrosion at the point where the whip screws onto the base. Similarly, make these same checks if you are using a permanent or semi-permanent antenna mount such as a hatch or trunk lip mount. Be sure the set screws are good and tight.

Finally, examine the integrity of the mobile radio chassis mount itself. It's not a good idea to make a temporary installation that becomes permanent. In the event of an accident, that little 20 watt dual bander could become a deadly missile if not properly bolted down. That's why the mounting bracket is supplied by the manufacturer. Make sure all hardware is properly tightened. Again -- follow the manufacturer's suggested installation instructions.

These inspection procedures don't take long, and done on a periodic basis, will ensure proper and safe operation of all of your mobile equipment.

Happy and safe travels!



GEARS Club Officers:

President.....Jim Matthews, K6EST
Vice-President.....Paul Stewart, N6PAS
Secretary.....Open
Treasurer.....Kathy Favor, K6FAV
ARES.....Dale Anderson, KK6EVX
Director.....Bennett Laskey, K6CEL
Director.....Kent Hastings, WA6ZFY
Director.....Rich Astley, N3UOR
Past President.....Tom Rider, W6JS
VEC.....Tom Rider, W6JS

GEARS Radiator past issues are available at:

<https://drive.google.com/drive/folders/0B-jPu0P0RkymZ2Q1WDR6THZLNmM?usp=sharing>

Photos from GEARs Steak 1969

<https://photos.app.goo.gl/euv1NPHCjtwAcwT69>

Photos from GEARs Steak 1989

<https://photos.app.goo.gl/n66qqKsNLdwTgJBc6>

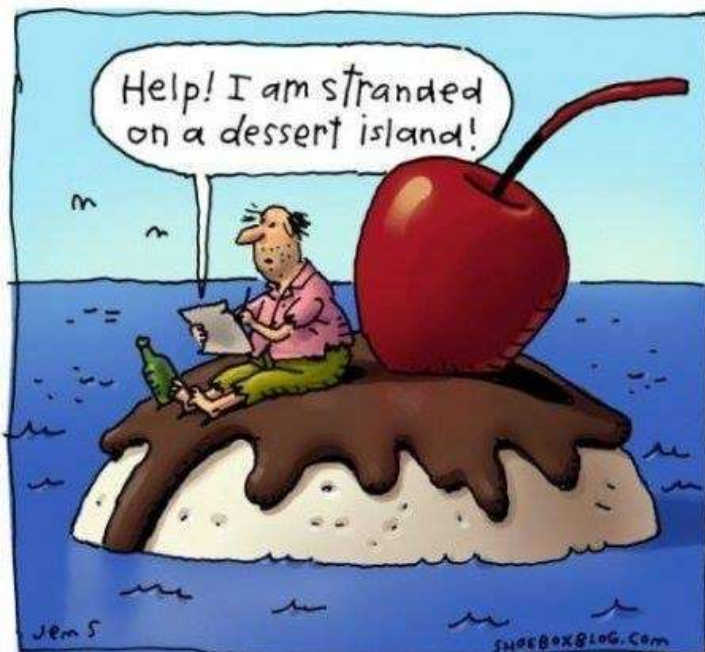
Photos from GEARs Ham Fest 1989

<https://photos.app.goo.gl/kq29mD5io6wXd9fk6>

Photos from GEARs recent GEARs meetings

<https://photos.app.goo.gl/kq29mD5io6wXd9fk6>

GEARS New Ham Kit includes information to help operators get started. Share this with anyone who is newly licensed. <https://tinyurl.com/rsw2p65c>



Bob loved the outdoors. Wound up with quite a collection.